To: Cally Younger[cyounger@blm.gov]
Cc: Anita Bilbao[abilbao@blm.gov]
From: Edwin Roberson
Sent: 2017-12-08T16:52:10-05:00
Importance: Normal
Subject: Fwd: oil and gas potential
Received: 2017-12-08T16:53:08-05:00
ATT00001.htm
EnergyDev_BENM.pdf
1. Cursory Review of the Mineral Potential Occurrence within the Bears Ears NM_BLM.pdf
ATT00002.htm
map17_Potential_For_Oil_Gas.pdf
ATT00003.htm
BENM_12082017_OG_EOI.pdf
ATT00004.htm
Oil_gas_cat_b4_BENM.pdf
ATT00005.htm

Cally, here is some of the info we have on oil and gas potential in the area of the BENM. Let me know if you have questions and we could have an oil and gas staffer answer. Ed

Sent from my iPhone

Begin forwarded message:

From: "Ashcroft, Tyler" <tashcrof@blm.gov>
To: Edwin Roberson <eroberso@blm.gov>
Subject: oil and gas potential

Ed,
Attached are a few maps showing oil, gas, and other mineral related potential in the Bears Ears National Monument. A description of each document is included below.

- EnergyDev BENM- This document was produced by the State of Utah in advance of the Secretary's visit to BENM. It shows mineral potential and historic development.
- Cursory Review of the Mineral Potential Occurrence within Bears Ears NM- Includes basic information regarding multiple mineral resources in original BENM, including oil and gas potential. Developed by the BLM Utah State Office immediately after the original designation.
- Map 17 Potential For Oil Gas- This map is from the 2008 Proposed RMP Final EIS. It shows oil and gas potential.
- BENM 12082017 OG EOI- This may shows oil and gas lease parcel nominations/expressions of interest received since 2012. These are areas industry has most recently been interested in.

- Oil gas cat B4 BENM- This map does not show potential, but does show the areas that were available for oil and gas development prior to establishment of the monument. The leasing categories come from the Monticello RMP (2008), as ammended by the Moab MLP (2016).

Please let me know if this information meets your needs or if additional information is needed.

--
Tyler Ashcroft
Project Manager
Bureau of Land Management
(801)-539-4068

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
440 West 200 South, Suite 500
Salt Lake City, UT 84101
https://www.blm.gov/utah

IN REPLY REFER TO:
(UT-9223-LG)

INFORMATION MEMO

TITLE: Cursory Review of the Mineral Potential/Occurrence within the Bears Ears NM

AUTHOR: Larry Garahana, Geologist (Certified Mineral Examiner 0147)

DATE: January 31, 2017

INTRODUCTION

The information within this memo gives an initial view through a series of maps showing mineral potential and occurrence within the newly designated Bears Ears National Monument, located within the Canyon Country District, Monticello Field Office, in San Juan County, Utah.

MEMO INFORMATION

The maps that were created for this memo are ones that show past or present mineral history, mineral potential or minerals that may be prospectively valuable within and around the new designation.

Some of the attached maps include information taken from the USGS Mineral Resource Data System (MRDS). MRDS describes metallic and nonmetallic mineral resources throughout the world. Included in the MRDS are deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references. Their interactive map (https://mrdata.usgs.gov/mineral-resources/mrds-us.html) has information on more than 180 commodities and this memo depicts a static representation of those commodities, past and present near and within the new designation. Although there was no prospect or production information near or within the monument for lithium, a lithium map was included for informational purposes due to the thousands of newly staked unpatented mining claims that were located north northeast of the monument. The information on the remaining maps was gathered from the most current BLM GIS data and it depicts potential and prospectively valuable mineral information on specific solid, fluid and leasable minerals within the subject area.

3031 - ENERGY AND MINERAL RESOURCE ASSESSMENT

Mineral Potential Classification System*

I. Level of Potential

O. The geologic environment, the inferred geologic processes, and the lack of mineral occurrences do not indicate potential for accumulation of mineral resources.

L. The geologic environment and the inferred geologic processes indicate low potential for accumulation of mineral resources.

M. The geologic environment, the inferred geologic processes, and the reported mineral occurrences or valid geochemical/geophysical anomaly indicate moderate potential for accumulation of mineral resources.

H. The geologic environment, the inferred geologic processes, the reported mineral occurrences and/or valid geochemical/geophysical anomaly, and the known mines or deposits indicate high potential for accumulation of mineral resources. The "known mines and deposits" do not have to be within the area that is being classified, but have to be within the same type of geologic environment.

ND. Mineral(s) potential not determined due to lack of useful data. This notation does not require a level-of-certainty qualifier.

II. Level of Certainty

A. The available data are insufficient and/or cannot be considered as direct or indirect evidence to support or refute the possible existence of mineral resources within the respective area.

B. The available data provide indirect evidence to support or refute the possible existence of mineral resources.

C. The available data provide direct evidence but are quantitatively minimal to support or refute the possible existence of mineral resources.

D. The available data provide abundant direct and indirect evidence to support or refute the possible existence of mineral resources.

For the determination of No Potential use O/D. This class shall be seldom used, and when used it should be for a specific commodity only. For example, if the available data show that the surface and subsurface types of rock in the respective area is batholithic (igneous intrusive), one can conclude, with reasonable certainty, that the area does not have potential for coal.

* As used in this classification, potential refers to potential for the presence (occurrence) of a concentration of one or more energy and/or mineral resources. It does not refer to or imply potential for development and/or extraction of the mineral resource(s). It does not imply that the potential concentration is or may be economic, that is, could be extracted profitably.

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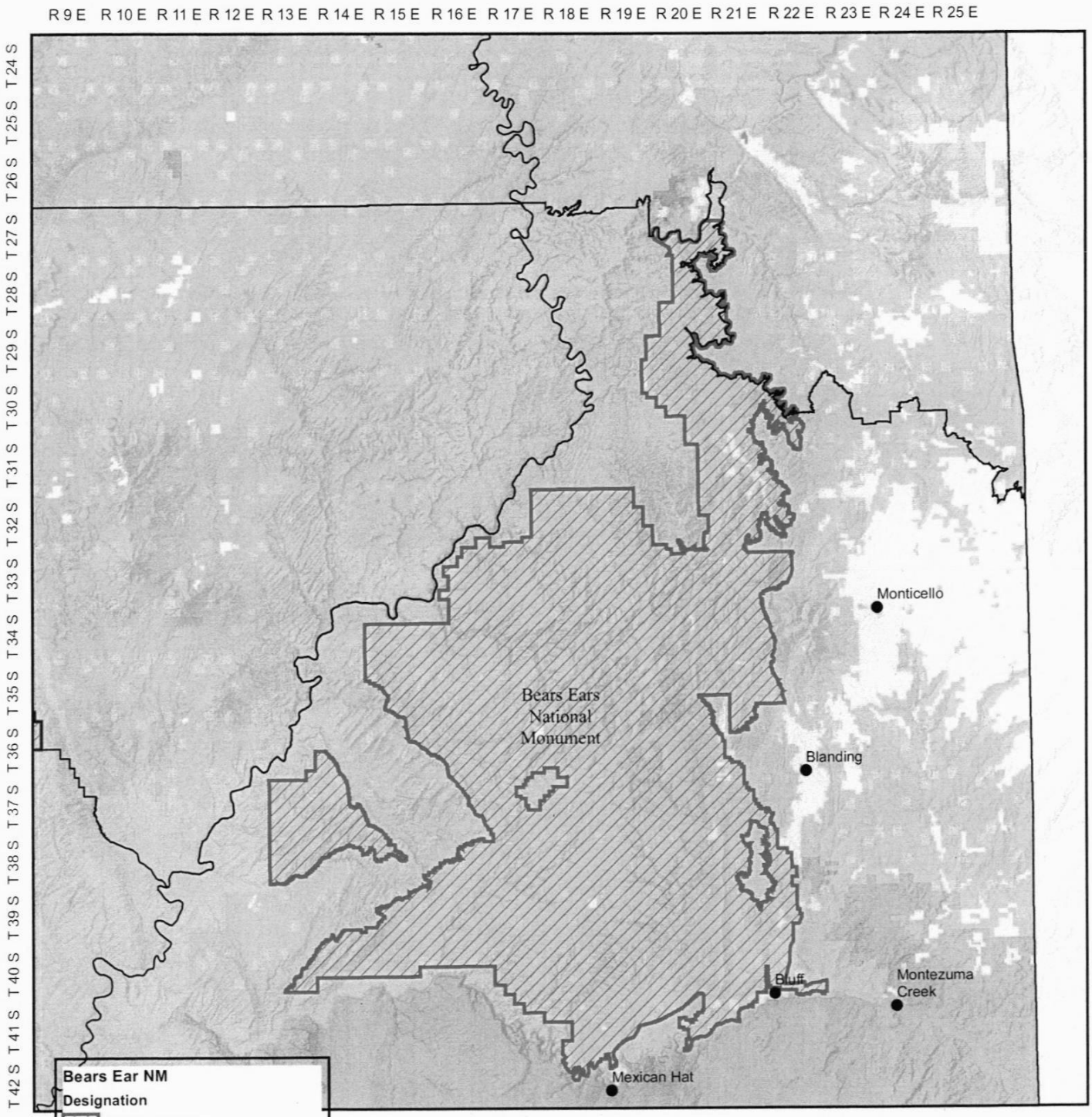
BEARS EAR NATIONAL MONUMENT



March 2, 2017

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.

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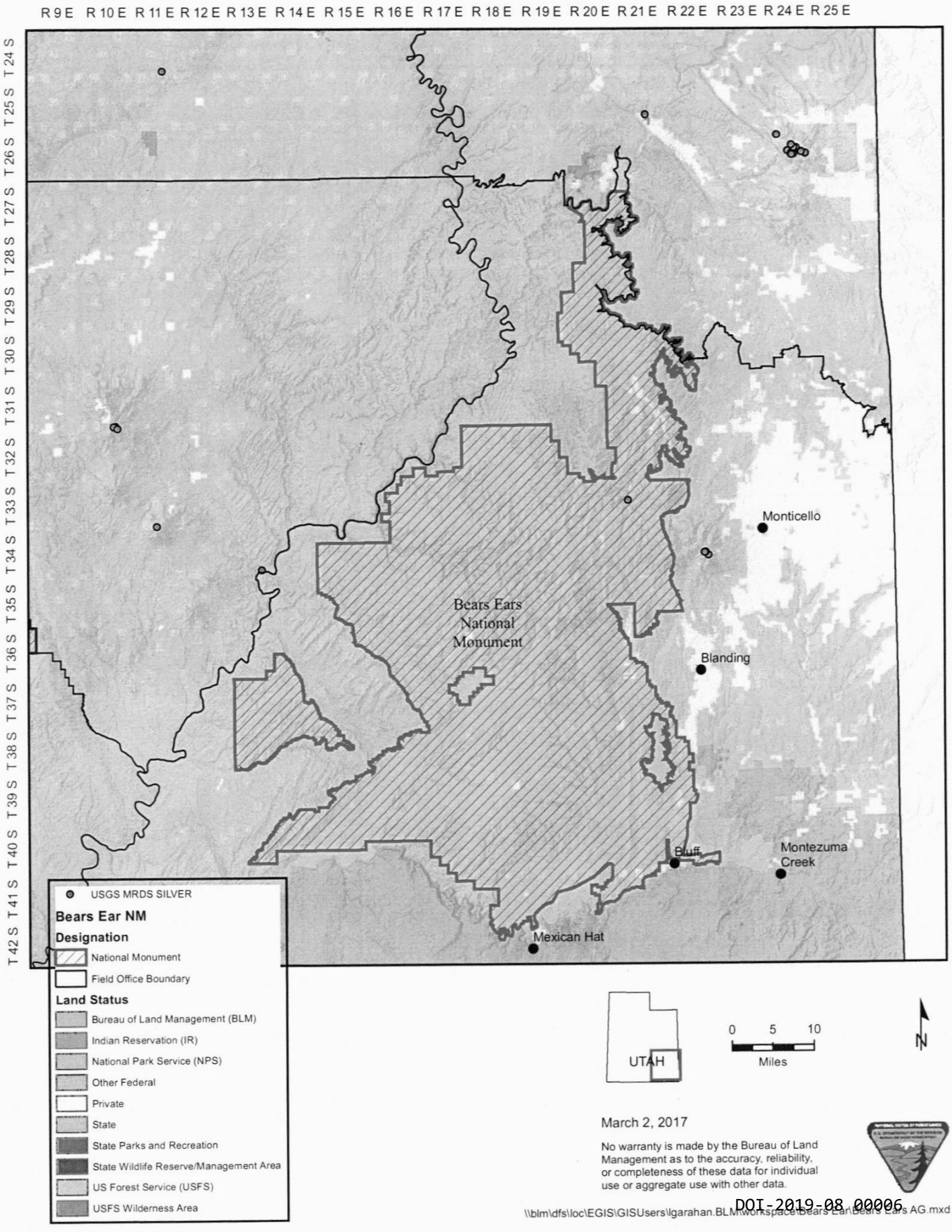
UTAH STATE OFFICE

USGS MINERAL RESOURCE DATA SYSTEM SILVER



March 2, 2017

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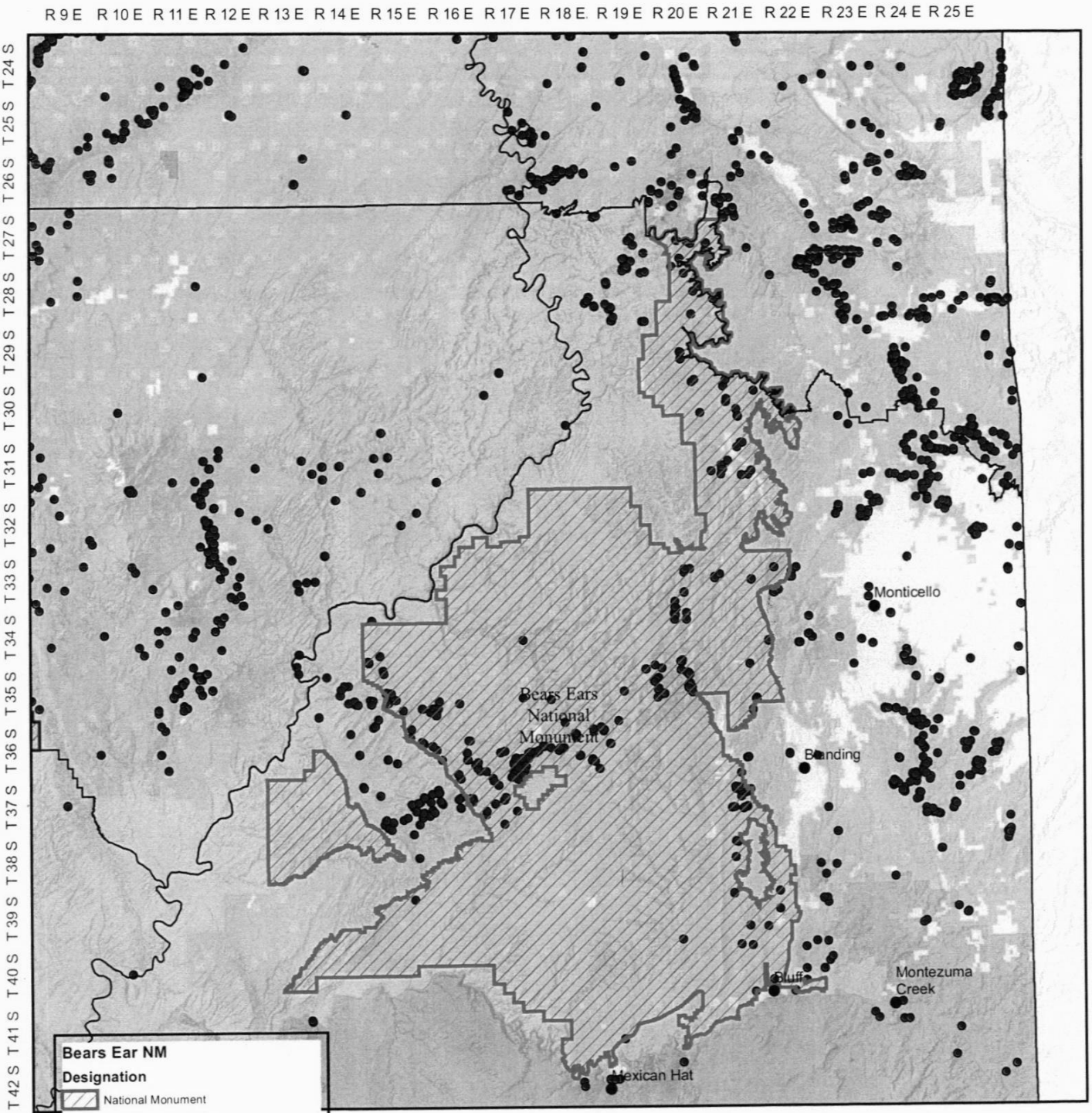
POTENTIAL AML FEATURES



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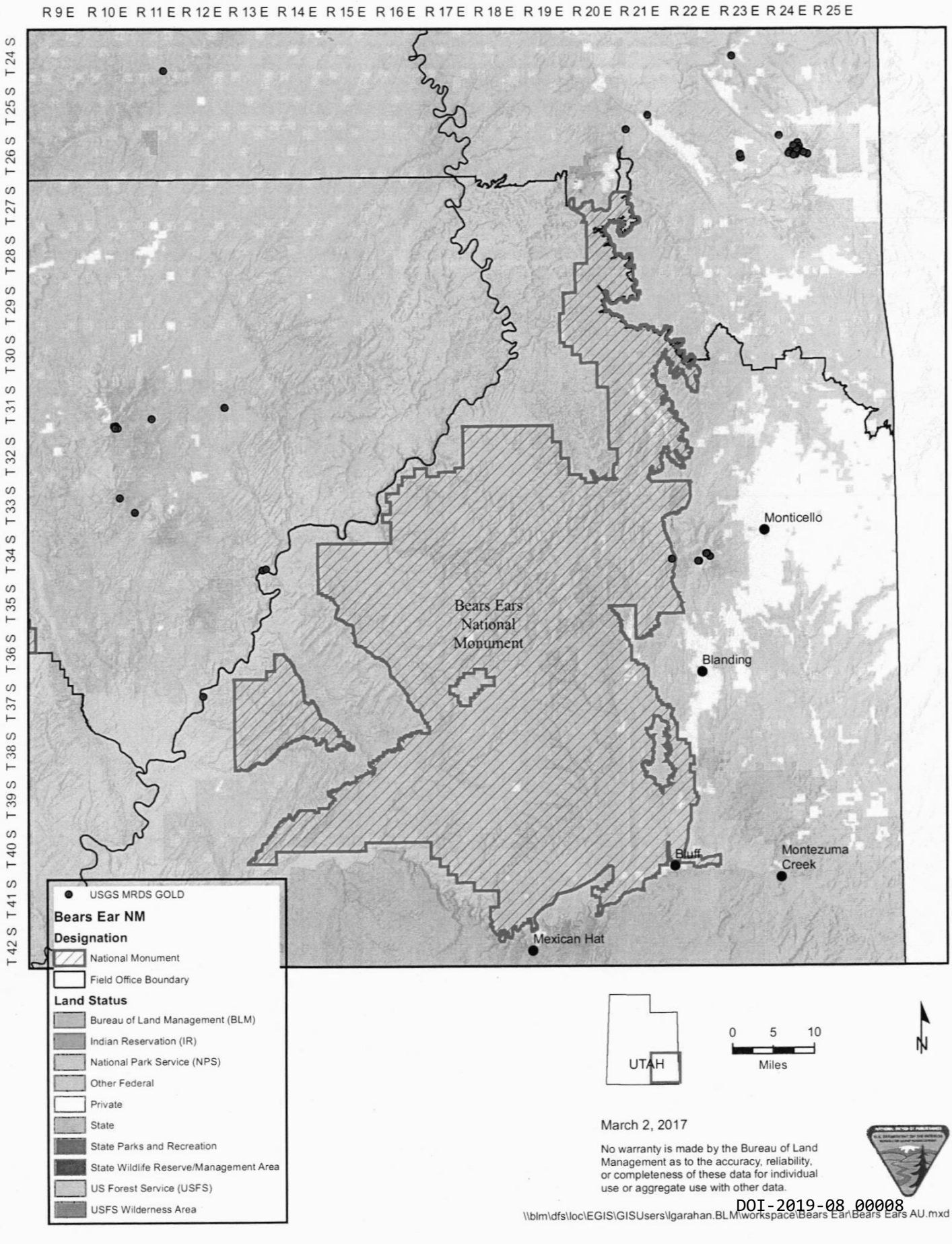
UTAH STATE OFFICE

USGS MINERAL RESOURCE DATA SYSTEM GOLD



March 2, 2017

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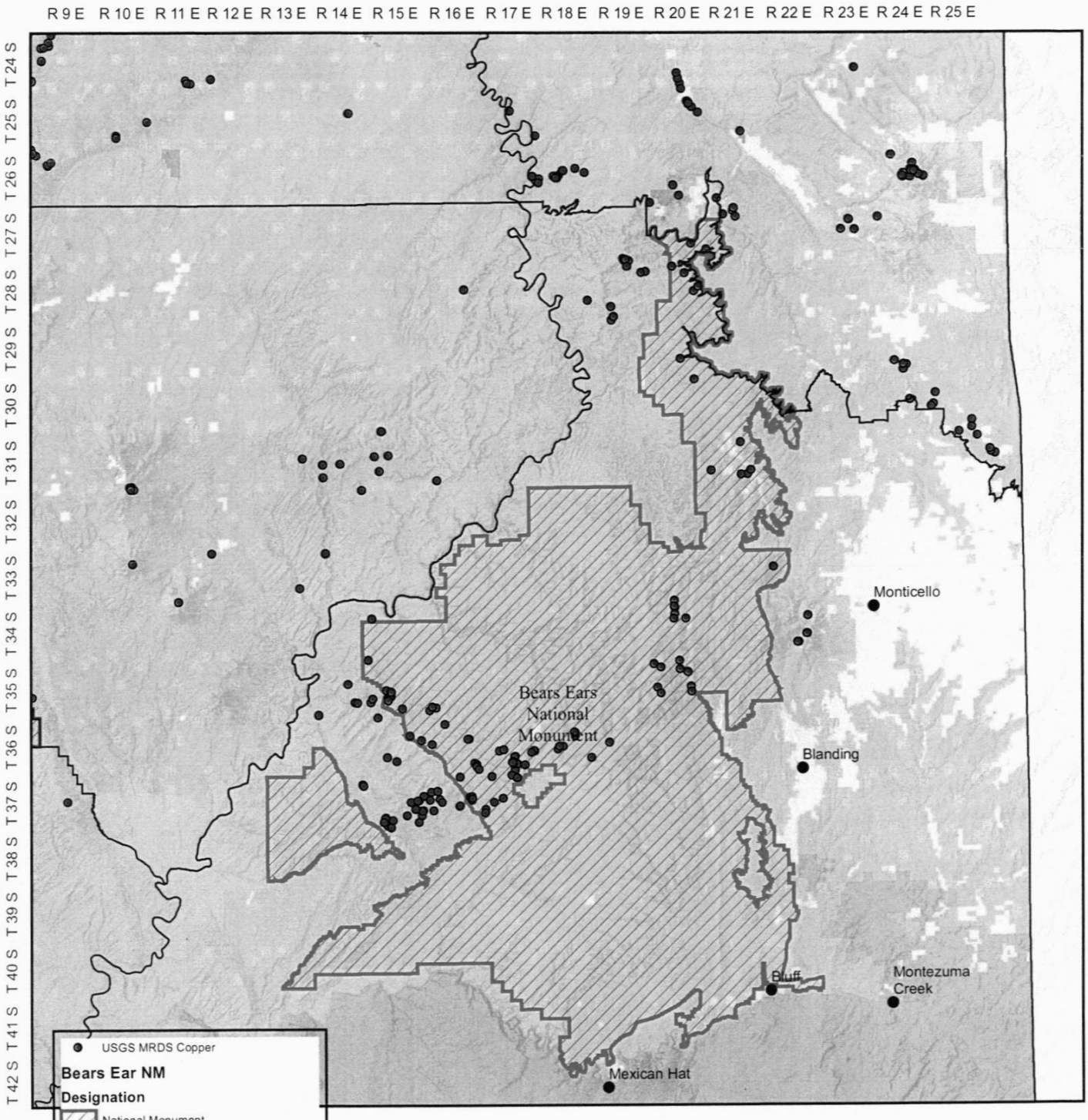
UTAH STATE OFFICE

USGS MINERAL RESOURCE DATA SYSTEM COPPER



March 2, 2017

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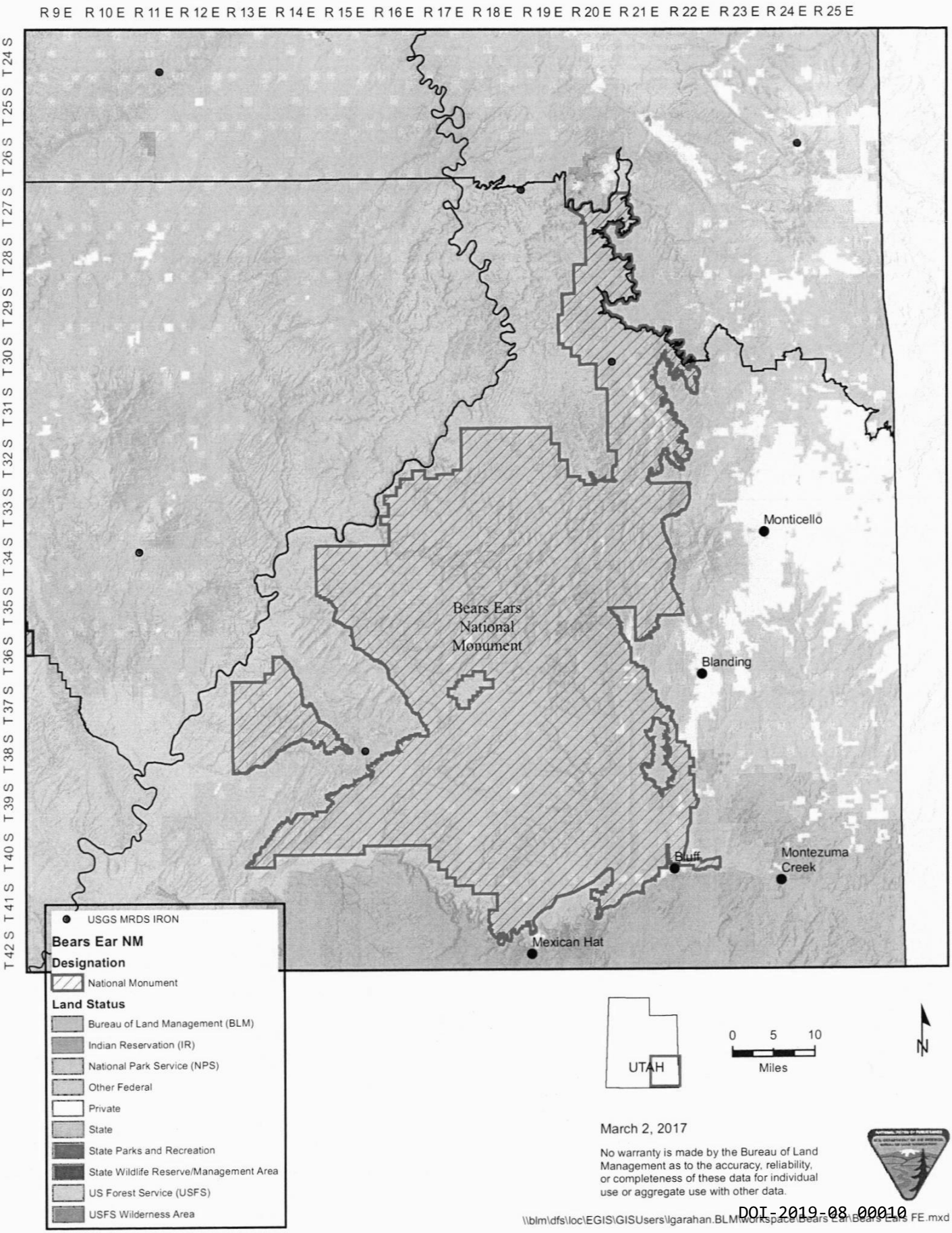
USGS MINERAL RESOURCE DATA SYSTEM IRON



March 2, 2017

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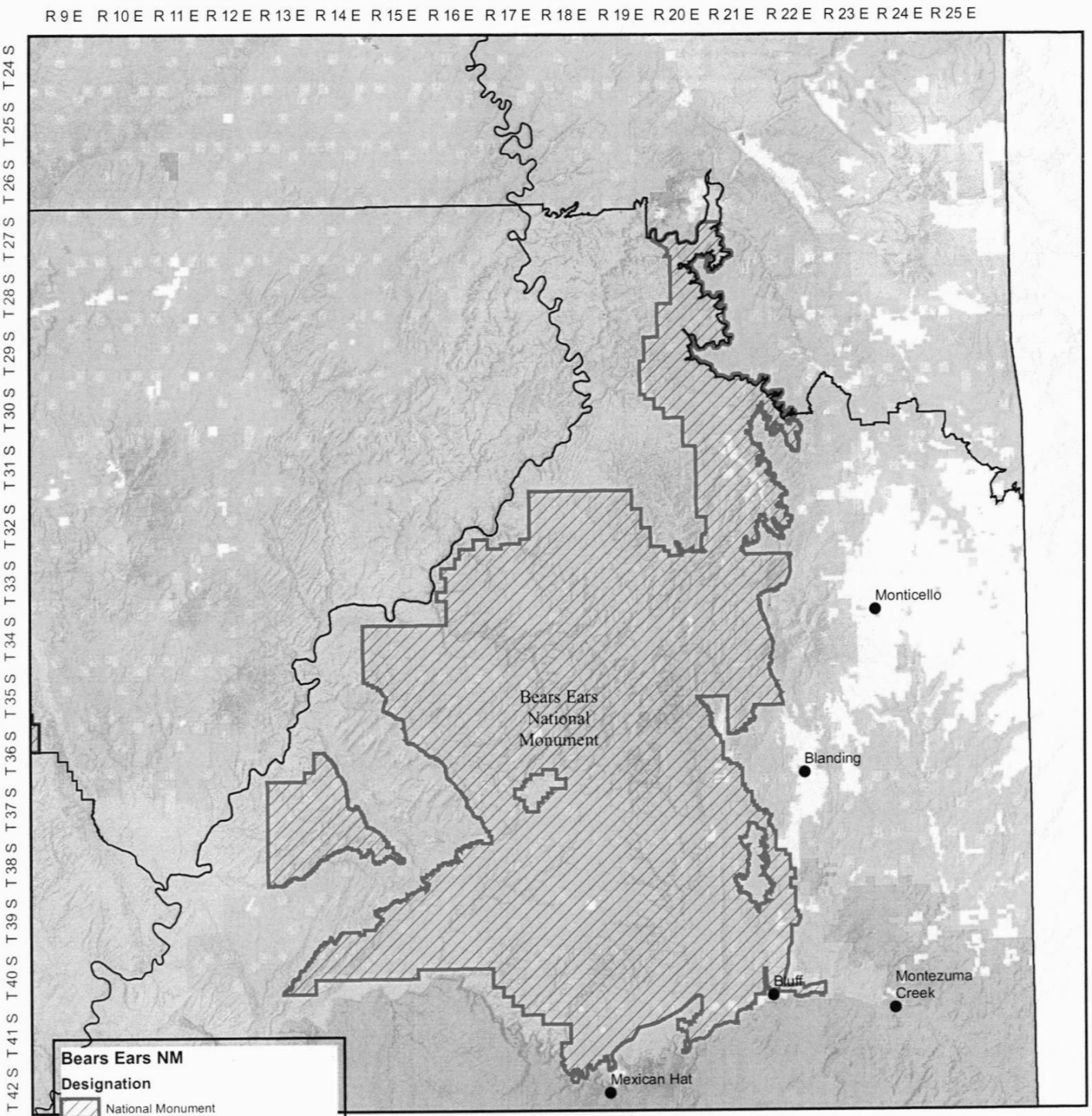
BUREAU OF LAND MANAGEMENT
UTAH STATE OFFICE

USGS MINERAL RESOURCE DATA SYSTEM LITHIUM



March 2, 2017

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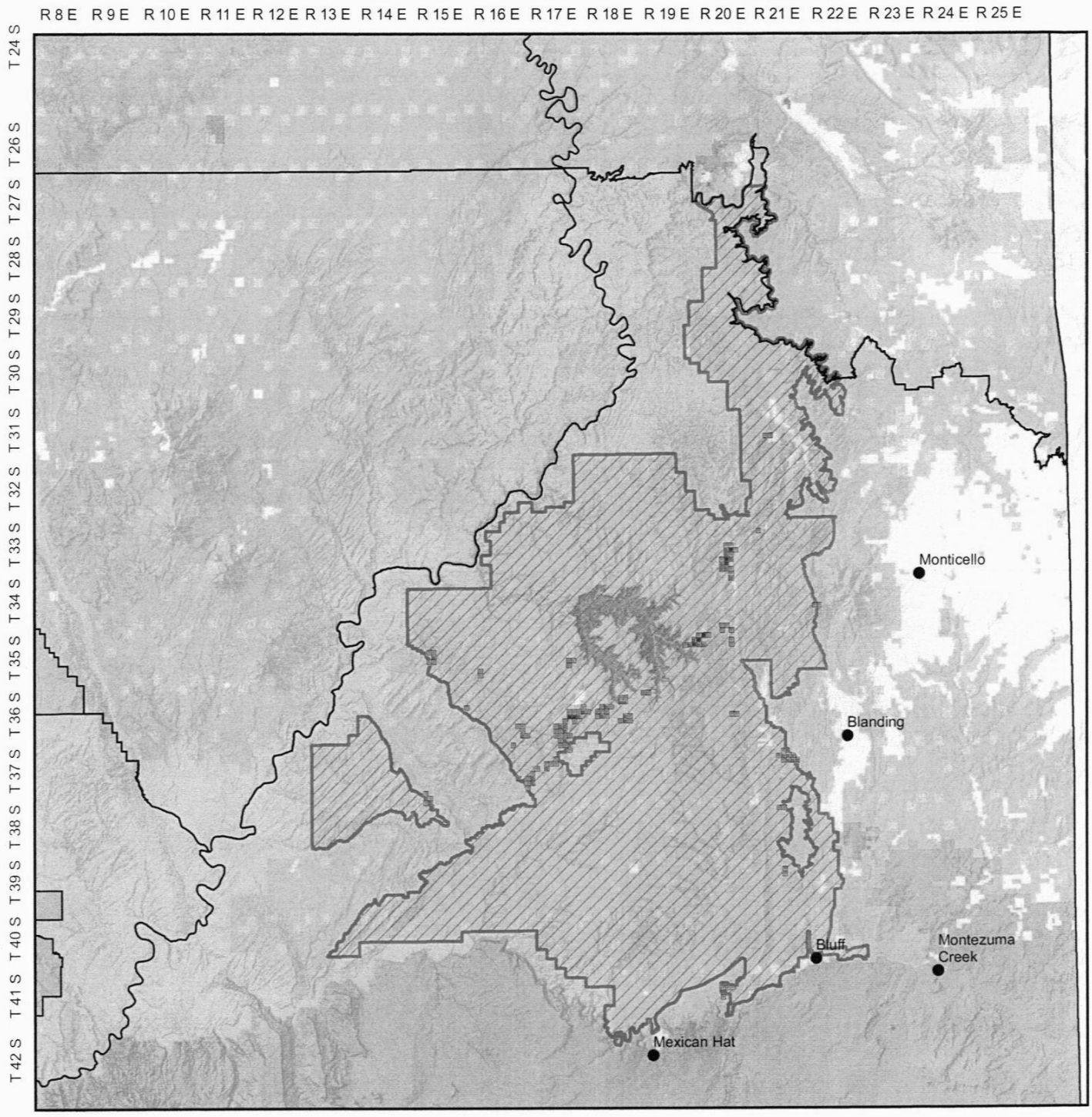
MINING CLAIMS WITHIN THE BEARS EARS NM AS OF SEPTEMBER 2016



Bears Ear NM

Mining Claim Density per 160 acres

- 1 - 3
- 4 - 8
- 9 - 16

Land Status

- Bureau of Land Management (BLM)
- Indian Reservation (IR)
- National Park Service (NPS)
- Other Federal
- Private
- State
- State Parks and Recreation
- State Wildlife Reserve/Management Area
- US Forest Service (USFS)
- USFS Wilderness Area

0 5 10
Miles

N

February 22, 2017

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.

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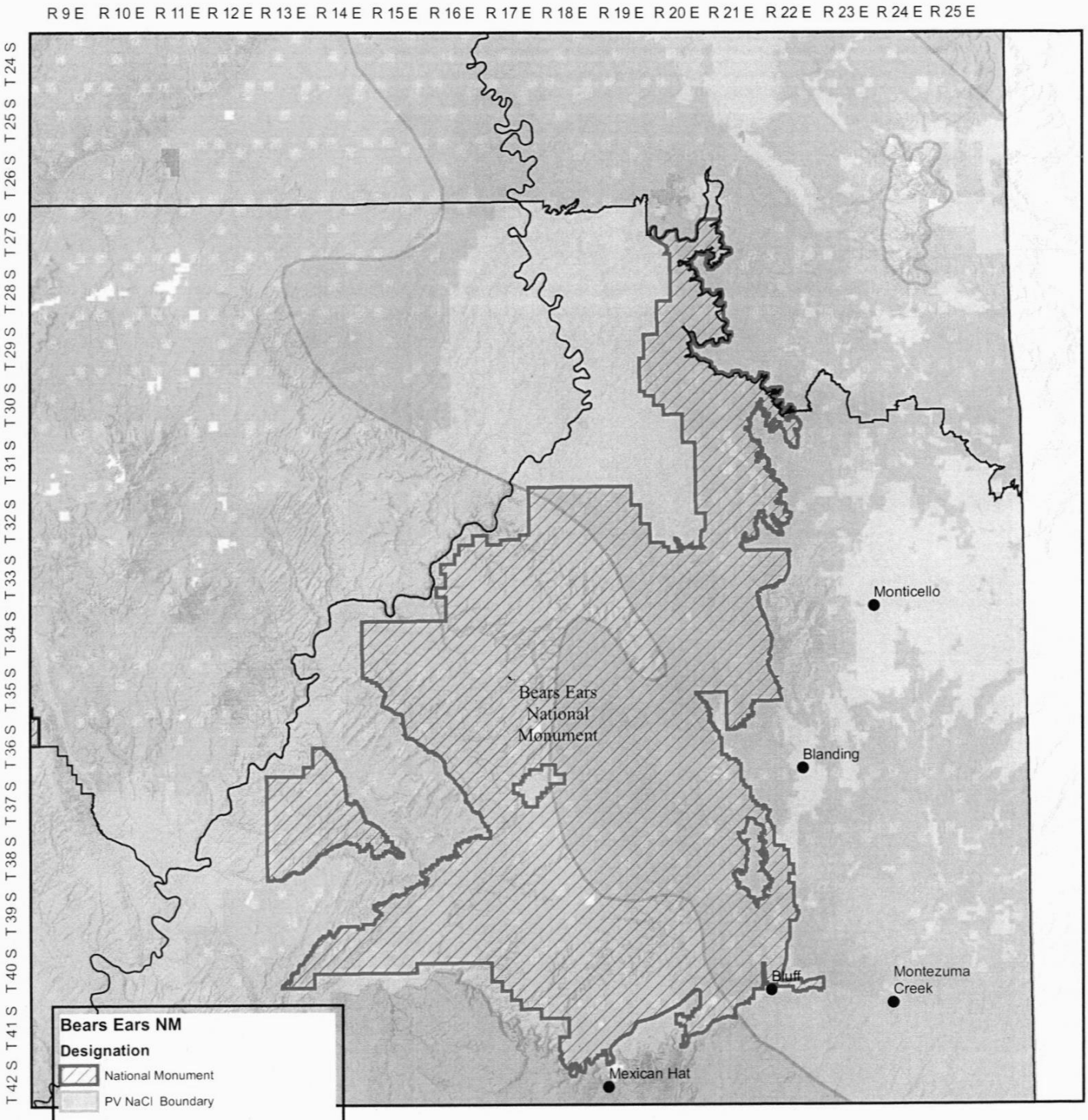
PROSPECTIVELY VALUABLE FOR SODIUM CHLORIDE



March 2, 2017

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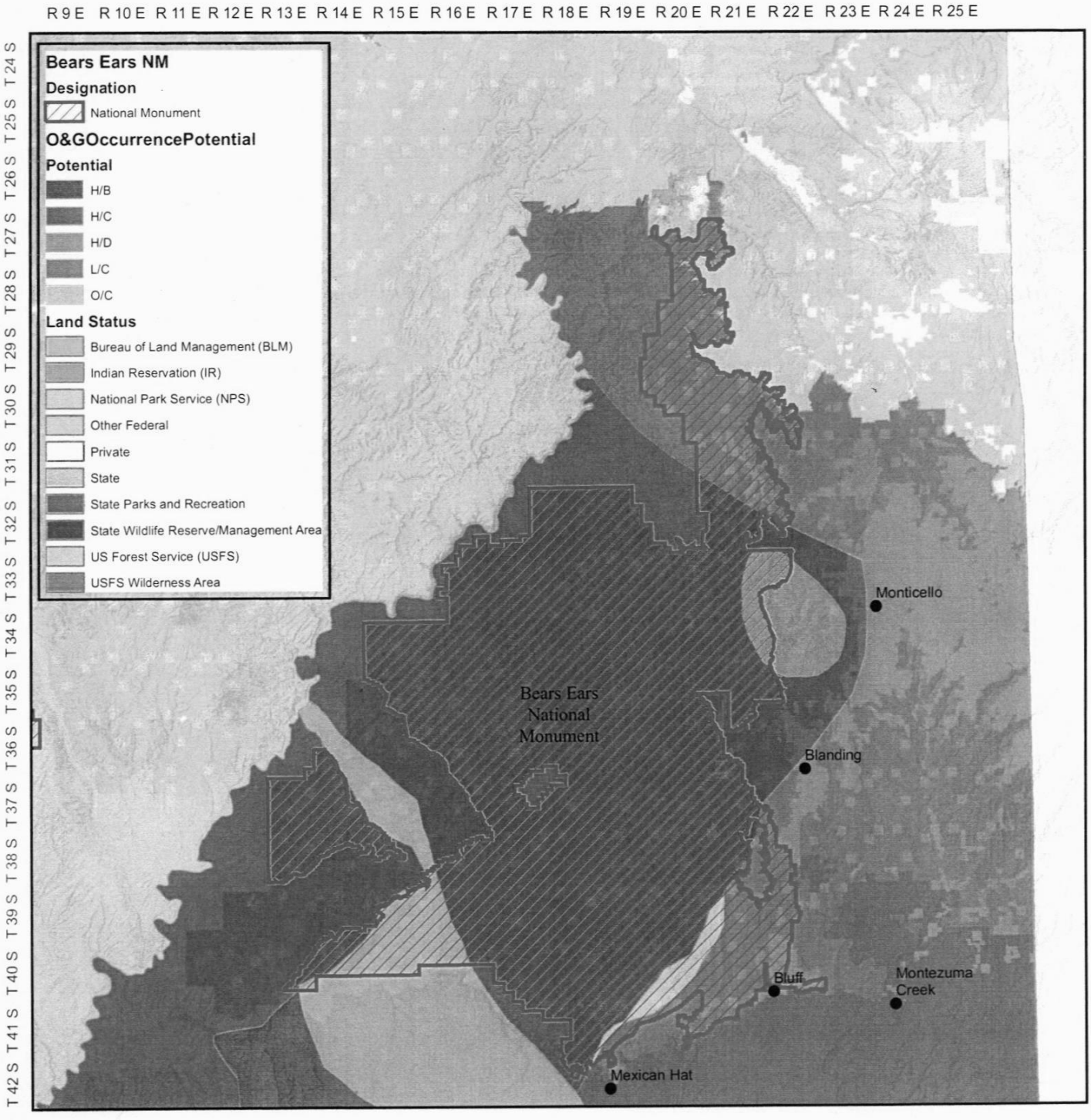
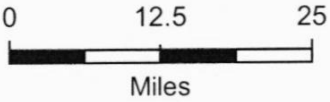
OIL AND GAS POTENTIAL





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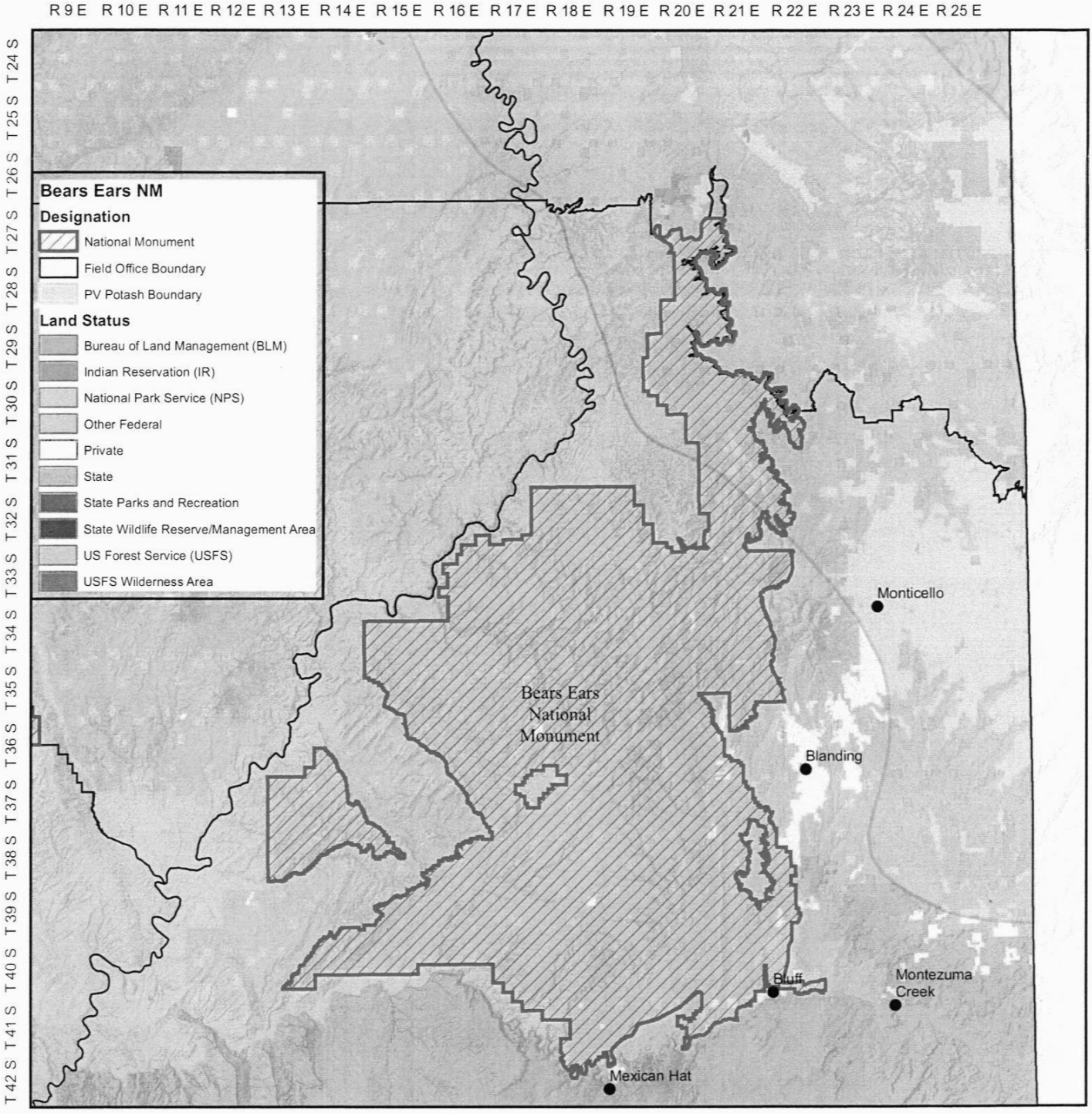
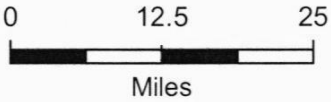
BUREAU OF LAND MANAGEMENT
UTAH STATE OFFICE

PROSPECTIVELY VALUABLE FOR POTASH





March 2, 2017

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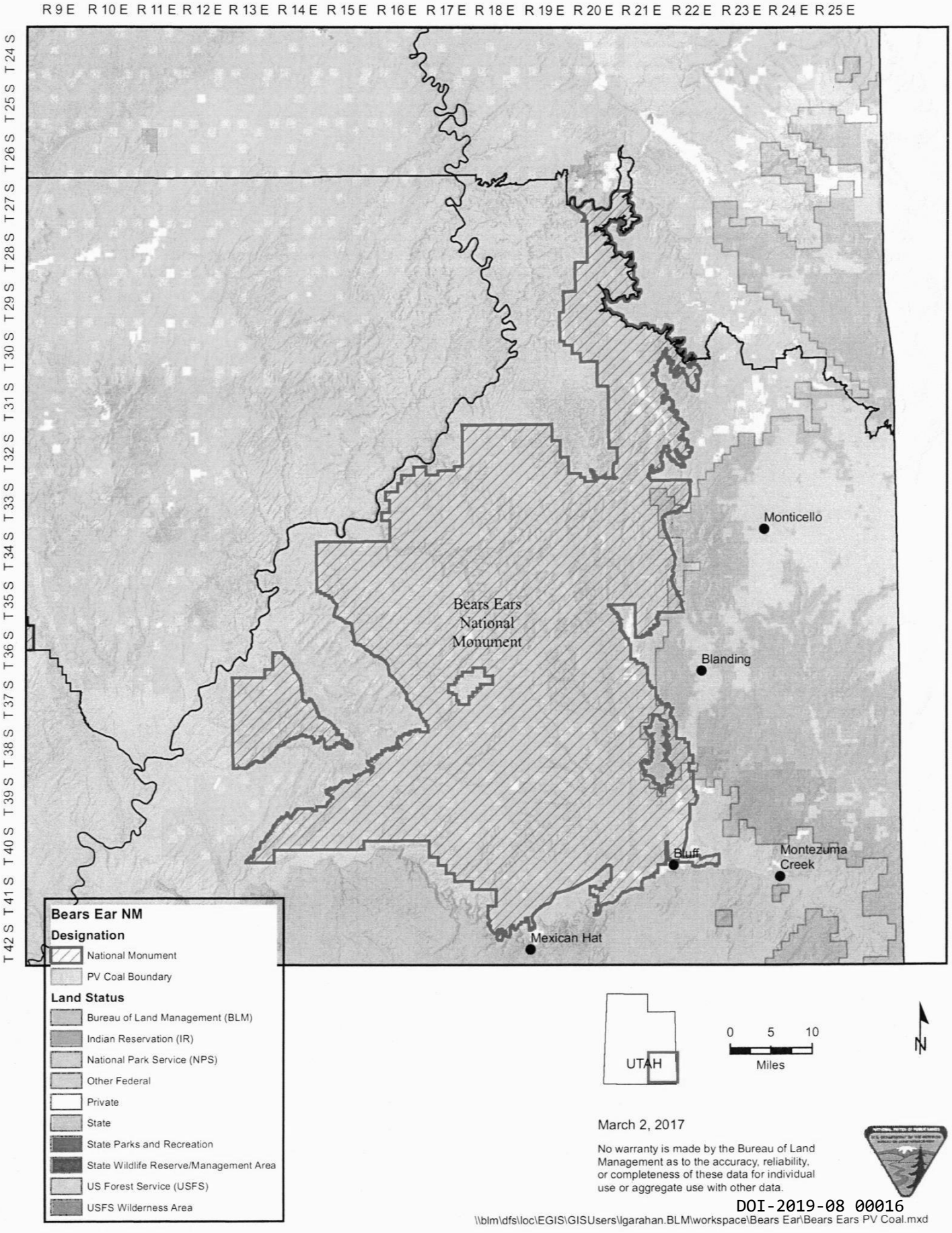
PROSPECTIVELY VALUABLE FOR COAL



March 2, 2017

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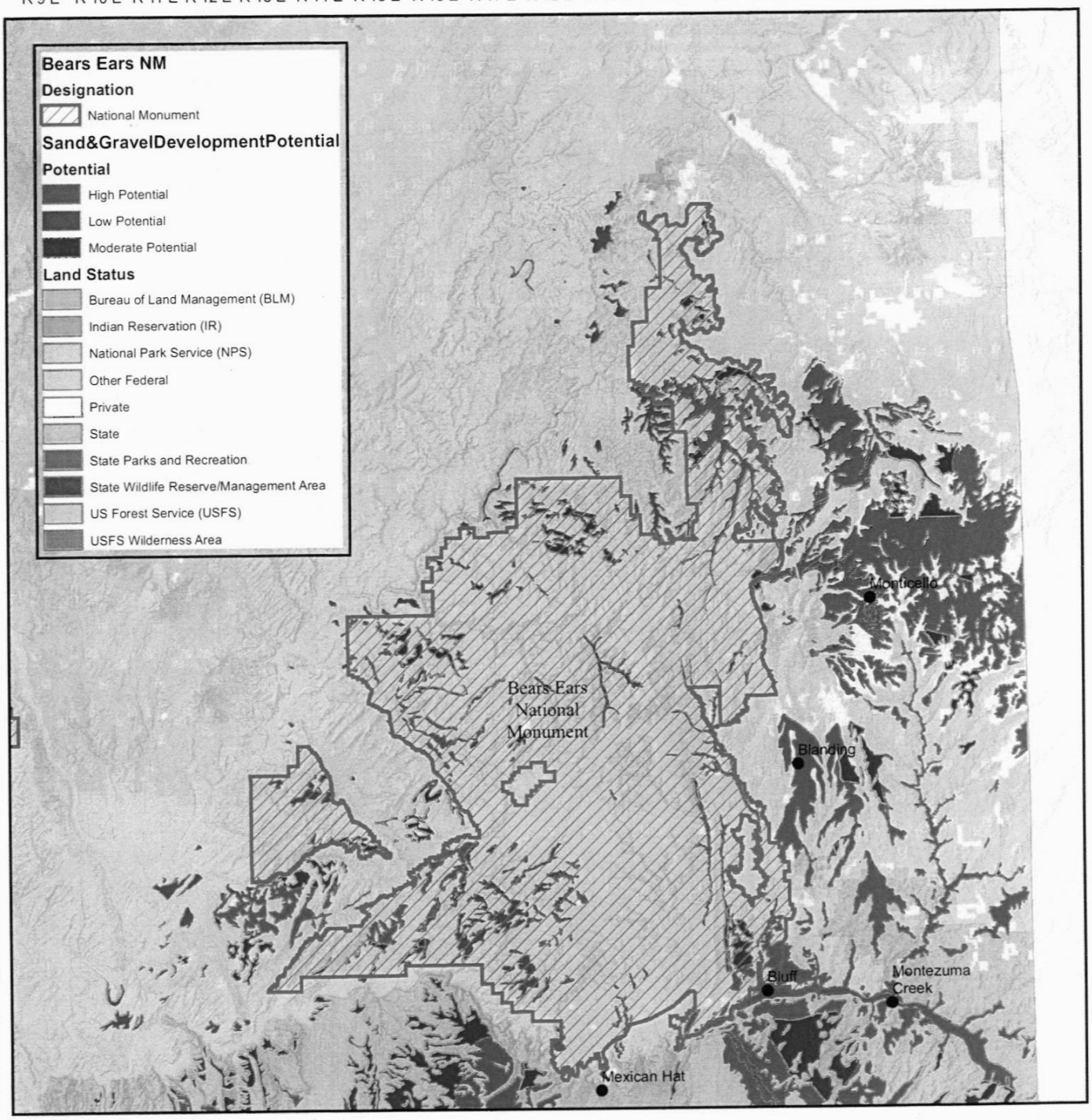
MINERAL POTENTIAL FOR SAND AND GRAVEL

R 9 E R 10 E R 11 E R 12 E R 13 E R 14 E R 15 E R 16 E R 17 E R 18 E R 19 E R 20 E R 21 E R 22 E R 23 E R 24 E R 25 E

T 24 S T 25 S T 26 S T 27 S T 28 S T 29 S T 30 S T 31 S T 32 S T 33 S T 34 S T 35 S T 36 S T 37 S T 38 S T 39 S T 40 S T 41 S T 42 S



0 12.5 25
Miles

N

March 2, 2017

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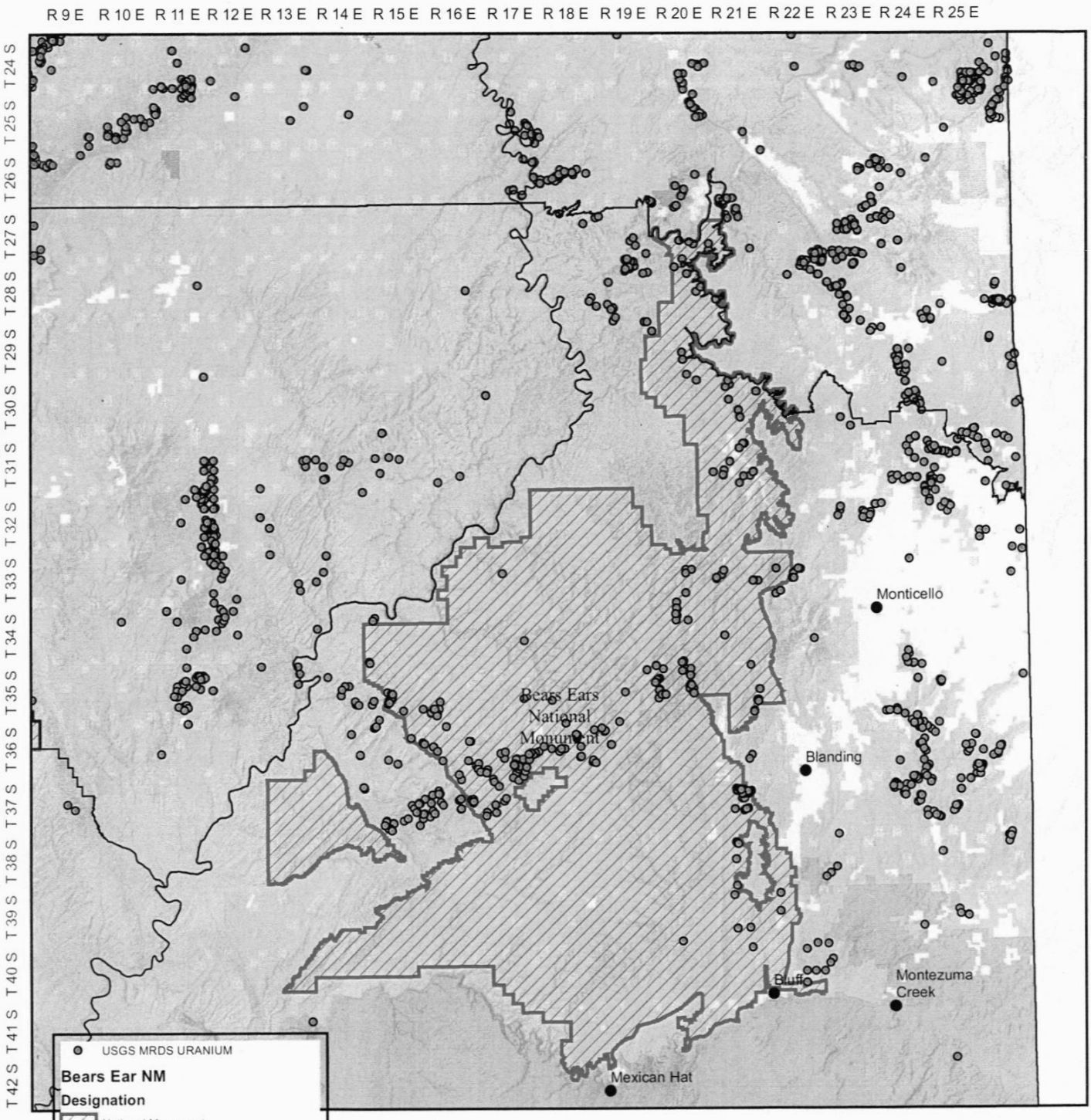
USGS MINERAL RESOURCE DATA SYSTEM URANIUM



March 2, 2017

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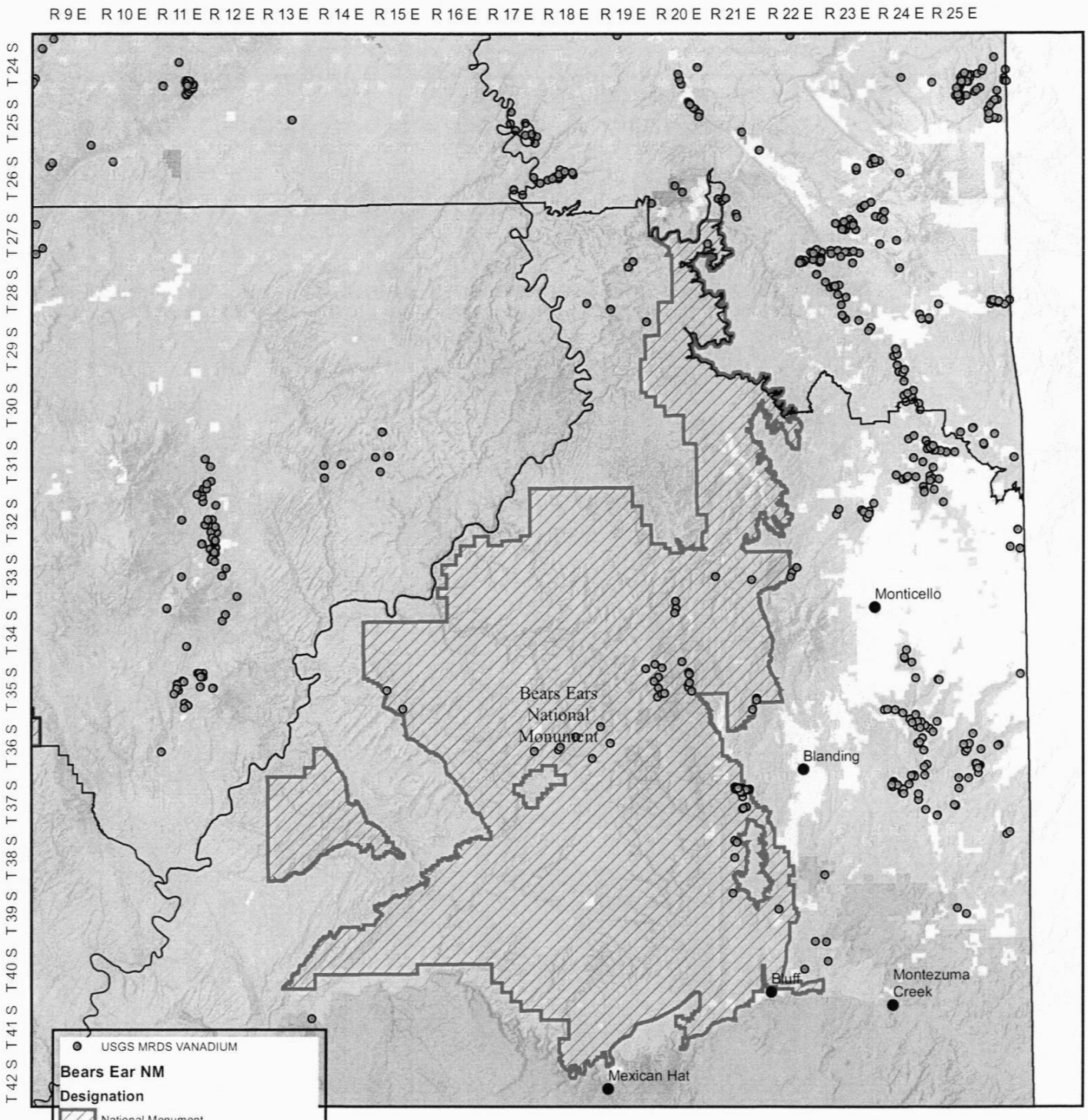
USGS MINERAL RESOURCE DATA SYSTEM VANADIUM



March 2, 2017

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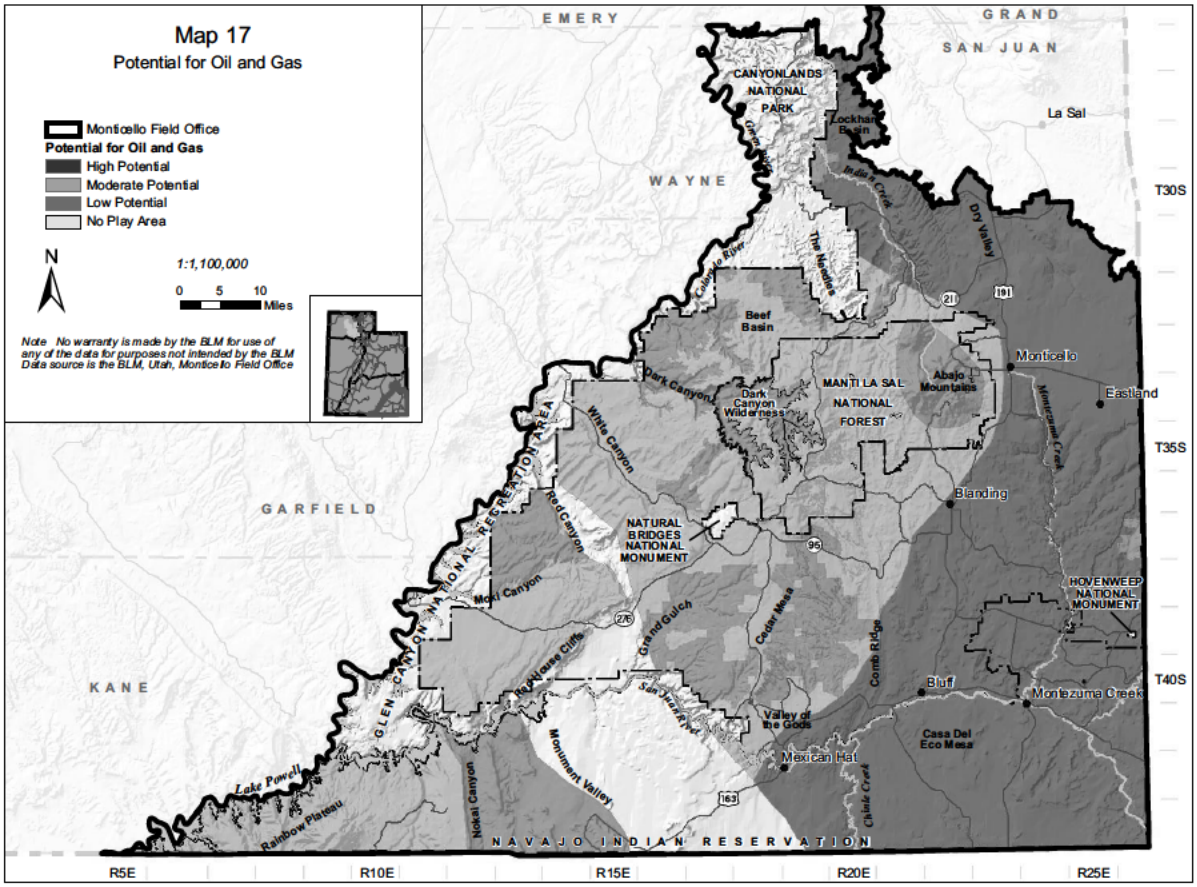
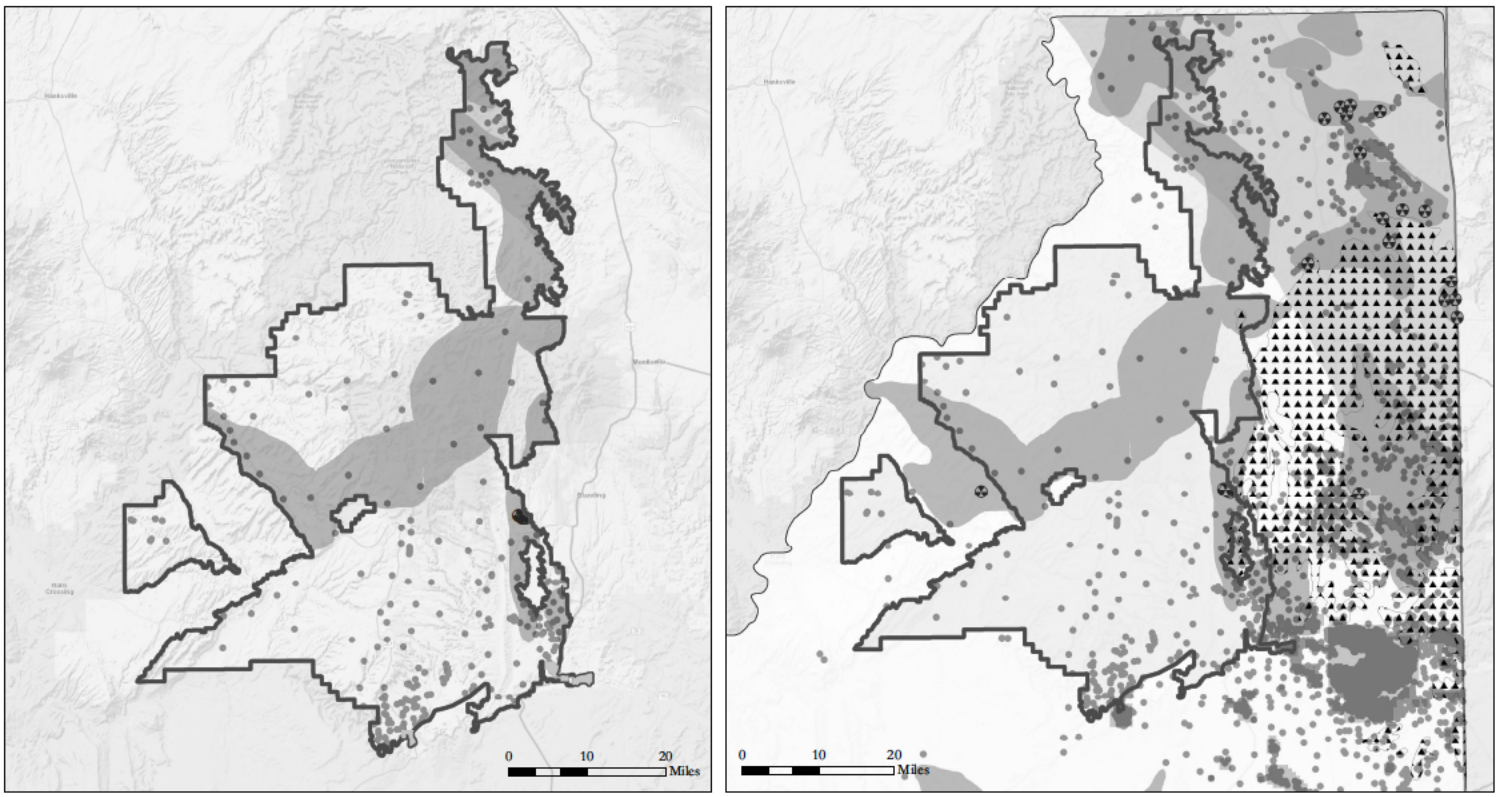

Map 17
Potential for Oil and Gas
Monticello Field Office
Potential for Oil and Gas
High Potential
Moderate Potential
Low Potential
No Play Area
N
1:1,100,000
0 5 10
Miles
Note No warranty is made by the BLM for use of any of the data for purposes not intended by the BLM
Data source is the BLM, Utah, Monticello Field Office
EMERY
GRAND
SAN JUAN
WAYNE
GARFIELD
KANE
CANYONLANDS NATIONAL PARK
Lockhart Basin
La Sal
Indian Creek
Dry Valley
The Needles
Beef Basin
Monticello
Abajo Mountains
Eastland
MANTI LA SAL NATIONAL FOREST
Dark Canyon
Dark Canyon Wilderness
White Canyon
Red Canyon
Blanding
NATURAL BRIDGES NATIONAL MONUMENT
Moki Canyon
Grand Gulch
Cedar Mesa
Comb Ridge
HOVENWEEP NATIONAL MONUMENT
Bluff
Montezuma Creek
Valley of the Gods
Casa Del Eco Mesa
Mexican Hat
Monument Valley
Lake Powell
Rainbow Plateau
Nokai Canyon
Clarks Creek
NAVAJO INDIAN RESERVATION
T30S
T35S
T40S
R5E
R10E
R15E
R20E
R25E

Energy Development in Bears Ears National Monument & San Juan County



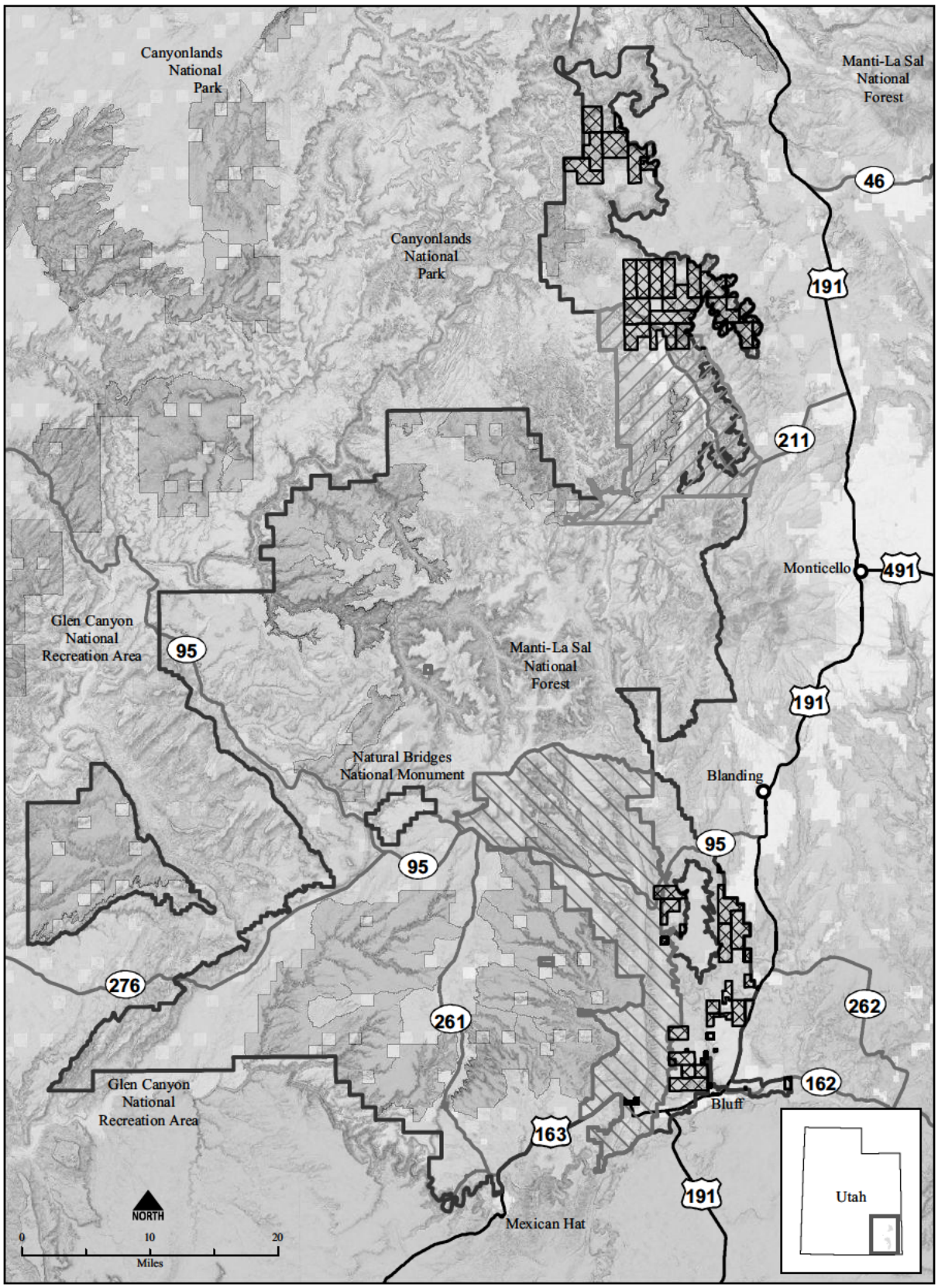
Utah Division of State History
A DIVISION OF THE UTAH DEPARTMENT OF HERITAGE & ARTS

Bears Ears National Monument
Coal Deposit Areas
Oil & Gas Fields
Uranium Districts
Potash Deposits
Uranium Mines
Oil & Gas Wells
N

Data sources: BLM (BENM boundary) and AGRC (coal, oil/gas, uranium, potash); basemap: ESRI

Bears Ears National Monument Boundary Modification

Nominated Oil and Gas Parcels



Original BENM Boundary
Shash Jáa Unit
Indian Creek Unit
US Highway
State Highway

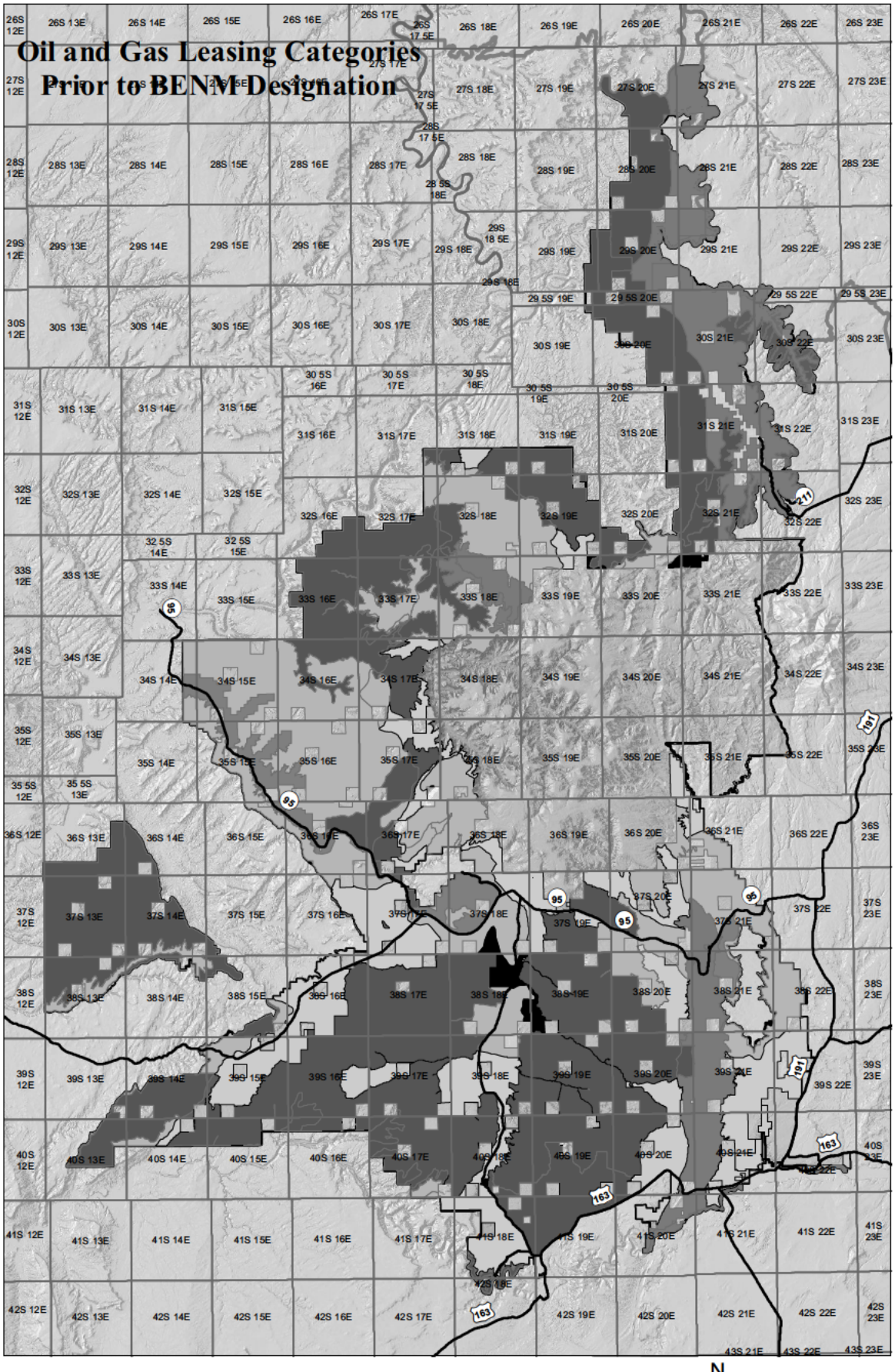
Nominated Parcel
Wilderness Study Area
Bureau of Land Management (BLM)
Indian Reservation (IR)
National Park Service (NPS)

Private
State
US Forest Service (USFS)
USFS Wilderness Area

Coordinate System: NAD 1983 UTM Zone 12N
Projection: Transverse Mercator
Datum: North American 1983
Units: Meter

December 8, 2017

FOIA001:01714326



DOI-2019-08 00023